



SEQUENCE LISTING

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Auge, Jennifer Stoehr
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<120> MUTANTS OF STREPTOCOCCAL TOXIN A AND METHODS OF USE

<130> 600.346USWO

<140> US 09/308,830
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<150> PCT/US97/22228
<151> 1997-12-05

<150> US 60/032,930
<151> 1996-12-06

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<170> PatentIn version 3.1

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tta ttt aag gat aaa aac gtt gat att tat ggt gta gaa tat tac cat Leu Phe Lys Asp Lys Asn Val Asp Ile Tyr Gly Val Glu Tyr Tyr His 100 105 110 115	1172
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gtc gtt aaa gta tca atc gat ggt atc caa agc cta tca ttt gat att Val Val Lys Val Ser Ile Asp Gly Ile Gln Ser Leu Ser Phe Asp Ile 150 155 160	1316
gaa aca aat aaa aaa atg gta act gct caa gaa tta gac tat aaa gtt Glu Thr Asn Lys Lys Met Val Thr Ala Gln Glu Leu Asp Tyr Lys Val 165 170 175	1364

aga aaa tat ctt aca gat aat aag caa cta tat act aat gga cct tct	1412
Arg Lys Tyr Leu Thr Asp Asn Lys Gln Leu Tyr Thr Asn Gly Pro Ser	
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aaa tat gaa act gga tat ata aag ttc ata cct aag aat aaa gaa agt	1460
Lys Tyr Glu Thr Gly Tyr Ile Lys Phe Ile Pro Lys Asn Lys Glu Ser	
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215 220 225	
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Leu Met Ile Tyr Lys Asp Asn Glu Thr Leu Asp Ser Asn Thr Ser Gln	
230 235 240	
att gaa gtc tac cta aca acc aag taacttttg ctttgccaa ctttacctac	1610
Ile Glu Val Tyr Leu Thr Thr Lys	
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Asp Pro Asp Pro Ser Gln Leu His Arg Ser Ser Leu Val Lys Asn Leu
35 40 45

Gln Asn Ile Tyr Phe Leu Tyr Glu Gly Asp Pro Val Thr His Glu Asn
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Val Lys Ser Val Asp Gln Leu Leu Ser His His Leu Ile Tyr Asn Val
65 70 75 80

Ser Gly Pro Asn Tyr Asp Lys Leu Lys Thr Glu Leu Lys Asn Gln Glu

85

90

95

Met Ala Thr Leu Phe Lys Asp Lys Asn Val Asp Ile Tyr Gly Val Glu
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Tyr Tyr His Leu Cys Tyr Leu Cys Glu Asn Ala Glu Arg Ser Ala Cys
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Ile Tyr Gly Gly Val Thr Asn His Glu Gly Asn His Leu Glu Ile Pro
130 135 140

Lys Lys Ile Val Val Lys Val Ser Ile Asp Gly Ile Gln Ser Leu Ser
145 150 155 160

Phe Asp Ile Glu Thr Asn Lys Lys Met Val Thr Ala Gln Glu Leu Asp
165 170 175

Tyr Lys Val Arg Lys Tyr Leu Thr Asp Asn Lys Gln Leu Tyr Thr Asn
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Gly Pro Ser Lys Tyr Glu Thr Gly Tyr Ile Lys Phe Ile Pro Lys Asn
195 200 205

Lys Glu Ser Phe Trp Phe Asp Phe Phe Pro Glu Pro Glu Phe Thr Gln
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Ser Lys Tyr Leu Met Ile Tyr Lys Asp Asn Glu Thr Leu Asp Ser Asn
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Thr Ser Gln Ile Glu Val Tyr Leu Thr Thr Lys ,
245 250